(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 16 May 2002 (16.05.2002)

PCT

(10) International Publication Number WO 02/039486 A3

(51) International Patent Classification7:

G06F 9/54

(21) International Application Number: PCT/US01/49984

(22) International Filing Date:

9 November 2001 (09.11.2001)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

09/709,158

9 November 2000 (09.11.2000) US

(71) Applicant: NATIONAL CENTER FOR GENOME RE-SOURCES [US/US]; 2935 Rodeo Park Drive East, Santa Fe, NM 87505 (US).

(74) Agents: ROBERTS, Jon, L. et al.; Roberts, Abokhair, & Mardula, LLC, 11800 Sunrise Valley Drive, Suite 1000, Reston, VA 20191 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

(88) Date of publication of the international search report: 6 September 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCI Gazette.

(54) Title: INTEGRATED SYSTEM FOR BIOLOGICAL INFORMATION

(57) Abstract: A system for the integration of heterogeneous bioinformatics software tools and databases (104) that allows interoperation of components adhering to a minimal set of standards. The system includes a software platform, one or more interface-based data models (110), and one or more component services. The invention utilizes an object oriented programming language to provide flexibility, synchronization, dynamic discovery, and The Client Environment comprises a common user interface (100). Various embodiments disclose particular data models of use for bioinformatics and plant biology. The flexibility and improvements this invention provides over traditional object oriented approaches has use for other fields not concerned with bionformatics and biology.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/49984

		101/0301/4970		
A. CLA	SSIFICATION OF SUBJECT MATTER			
IPC(7) : G06F 9/54				
US CL : 709/315				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols)				
U.S. : 709/315; 202, 203				
0.5 /	03/3/3, 202, 200			
Documentati	on searched other than minimum documentation to th	e extent that such documents are include	d in the fields searched	
Electronic da	ata base consulted during the international search (na	me of data hase and, where practicable, s	earch terms (ised)	
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)				
			1	
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a	poropriate, of the relevant passages	Relevant to claim No.	
	US 6,125,383 A (GLYNIAS et al) 26 September 20		1-30	
Y	05 6,125,365 A (OL 1 NIA3 et ш) 20 зерилиоет 20	(20.09.2000), the whole discullent.	1 5.7	
	1.70		1-30	
Y	US 5,329,619 A (PAGE et al.) 12 July 1994 (12.07.1994), the whole document.		1-30	
			1	
			1	
			,	
			l l	
			i	
			}	
Further	documents are listed in the continuation of Box C.	See patent family unnex.	İ	
Special categories of cited documents: T				
and and not in conflict with the application but cited to understand the				
"A" document defining the general state of the art which is not considered to be principle or theory underlying the invention				
of particu	ilar relevance	"X" document of particular relevance; the	element invention contact he	
"E" carlier ap	plication or patent published on or after the international filing date	considered novel or cannot be conside		
E Daniel ap	production of parent permanent at a later the transfer and a	when the document is taken alone	· I	
"L" document	which may throw doubts on priority claim(s) or which is cited to			
	the publication date of another citation or other special reason (as	"Y" document of particular relevance; the considered to involve an inventive step		
specified)		combined with one or more exher such	documents, such combination	
"O" document	referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in th		
•			,	
	"P" document published prior to the international filing date but later than the "&" document member of the same patent family			
priority date claimed				
Date of the actual completion of the international search Date of mailing of the international search				
ON MAY YUUL				
26 April 2002 (26.04.2002)				
Name and mailing address of the ISA/US Authorized officer			14 ano	
Commissioner of Patents and Trademarks		ST JOHN COURTENAY III		
Box PCT		ST. JOHN COURTENAY III		
Washington, D.C. 20231		Telephone No. 703 305-3665		
Facsimile No. 703 305-3230		piume00 000-0000	ł	

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/49984

Box III TEXT OF THE ABSTRACT (Continuation of frem 5 of the first sheet)			
The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).			
NEW ABSTRACT A system for the integration of heterogeneous bioinformatics software tools and databases (104) that allows interoperation of components adhering to a minimal set of standards. The system includes a software platform, one or more interface-based data models (110), and one or more component services. The invention utilizes an object oriented programming language to provide flexibility, synchronization, dynamic discovery, and The Client Environment comprises a common user interface (100). Various embodiments disclose particular data models of use for bioinformatics and plant biology. The flexibility and improvements this invention provides over traditional object oriented approaches has use for other fields not concerned with bioinformatics and biology.			